

# 6AN8-A

## Medium-Mu Triode— Sharp-Cutoff Pentode

9-PIN MINIATURE TYPE

With Heater Having Controlled Warm-Up Time

### GENERAL DATA

#### Electrical:

Heater, for Unipotential Cathodes:

Voltage (AC or DC) . . . . .	6.3	volts
Current . . . . .	0.45 ± 6%	amp
Warm-up time (Average) . . . . .	11	sec

Direct Interelectrode Capacitances:▲

#### Triode Unit:

Grid to plate . . . . .	1.5	μf
Grid to cathode and heater . . . . .	2	μf
Plate to cathode and heater . . . . .	0.26	μf

#### Pentode Unit:

Grid No.1 to plate . . . . .	0.04 max.	μf
Grid No.1 to cathode & grid No.3 & internal shield, grid No.2, and heater . . . . .	7	μf
Plate to cathode & grid No.3 & internal shield, grid No.2, and heater . . . . .	2.4	μf
Triode grid to pentode plate . . . . .	0.02 max.	μf
Pentode grid No.1 to triode plate . . . . .	0.02 max.	μf
Pentode plate to triode plate . . . . .	0.15 max.	μf

#### Characteristics, Class A<sub>1</sub> Amplifier:

	Triode Unit	Pentode Unit	
Plate Supply Voltage . . . . .	150	125	volts
Grid-No.2 Supply Voltage . . . . .	—	125	volts
Grid-No.1 Supply Voltage . . . . .	—3	0	volts
Cathode Resistor . . . . .	0	56	ohms
Amplification Factor . . . . .	21	—	
Plate Resistance (Approx.) . . . . .	4700	170000	ohms
Transconductance . . . . .	4500	7800	μmhos
Plate Current . . . . .	15	12	ma
Grid-No.2 Current . . . . .	—	3.8	ma
Grid-No.1 Voltage (Approx.) for plate μa = 20 . . . . .	—17	—6	volts
Grid-No.1 Voltage (Approx.) for plate ma. = 1.6, and cathode resistor (ohms) = 0 . . . . .	—	—3	volts

#### Mechanical:

Operating Position . . . . .	Any
Maximum Overall Length . . . . .	2-3/16"
Maximum Seated Length . . . . .	1-15/16"
Length, Base Seat to Bulb Top (Excluding tip) . . . . .	1-9/16" ± 3/32"



RADIO CORPORATION OF AMERICA  
Electron Tube Division

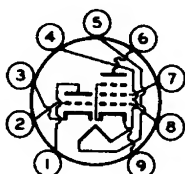
Harrison, N. J.

DATA 1  
1-61

# 6AN8-A

Diameter. . . . . 0.750" to 0.875"  
 Dimensional Outline . . . . . See *General Section*  
 Bulb. . . . . T6-1/2  
 Base. . . . . Small-Button Noval 9-Pin (JEDEC No.E9-1)  
 Basing Designation for BOTTOM VIEW. . . . . 9DA

Pin 1-Triode Plate  
 Pin 2-Triode Grid  
 Pin 3-Triode Cathode  
 Pin 4-Heater  
 Pin 5-Heater  
 Pin 6-Pentode Plate  
 Pin 7-Pentode Grid No.2



Pin 8-Pentode Grid No.1  
 Pin 9-Pentode Grid No.3, Pentode Cathode, Internal Shield

## AMPLIFIER — Class A<sub>1</sub>

### Maximum Ratings, Design-Maximum Values:

	Triode Unit	Pentode Unit	
PLATE VOLTAGE . . . . .	330 max.	330 max.	volts
GRID-No.2 (SCREEN-GRID)			
SUPPLY VOLTAGE. . . . .	-	330 max.	volts
GRID-No.2 VOLTAGE . . . . .	-	See Grid-No.2 Input	
<i>Rating Chart at front of Receiving Tube Section</i>			
GRID-No.1 (CONTROL-GRID)			
VOLTAGE:			
Positive-bias value . . . . .	0 max.	0 max.	volts
GRID-No.2 INPUT:			
For grid-No.2 voltages			
up to 165 volts . . . . .	-	0.55 max.	watt
For grid-No.2 voltages			
between 165 and 330 volts . . . . .	-	See Grid-No.2 Input	
<i>Rating Chart at front of Receiving Tube Section</i>			
PLATE DISSIPATION . . . . .	2.8 max.	2.3 max.	watts
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with			
respect to cathode. . . . .	200 max.	200 max.	volts
Heater positive with			
respect to cathode. . . . .	200 <sup>•</sup> max.	200 <sup>•</sup> max.	volts

### Maximum Circuit Values:

	Triode Unit	Pentode Unit	
Grid-No.1-Circuit Resistance:*			
For fixed-bias operation. . . . .	0.5 max.	0.25 max.	megohm
For cathode-bias operation. . . . .	1 max.	1 max.	megohm

▲ Without external shield.

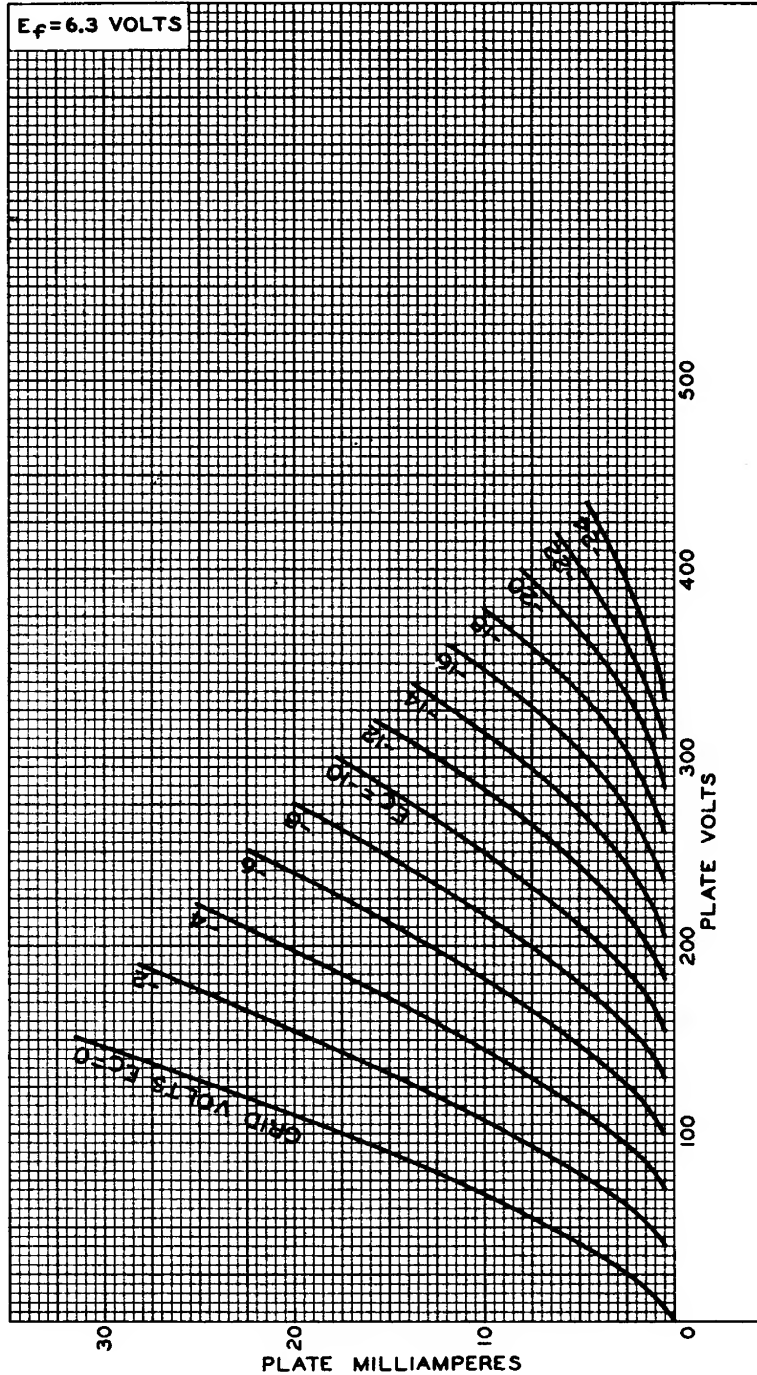
• The dc component must not exceed 100 volts.

\* If either unit is operated at maximum-rated conditions, grid-No.1-circuit resistances for both units should not exceed the stated values.



# 6AN8-A

## AVERAGE PLATE CHARACTERISTICS Triode Unit



92CM-8209

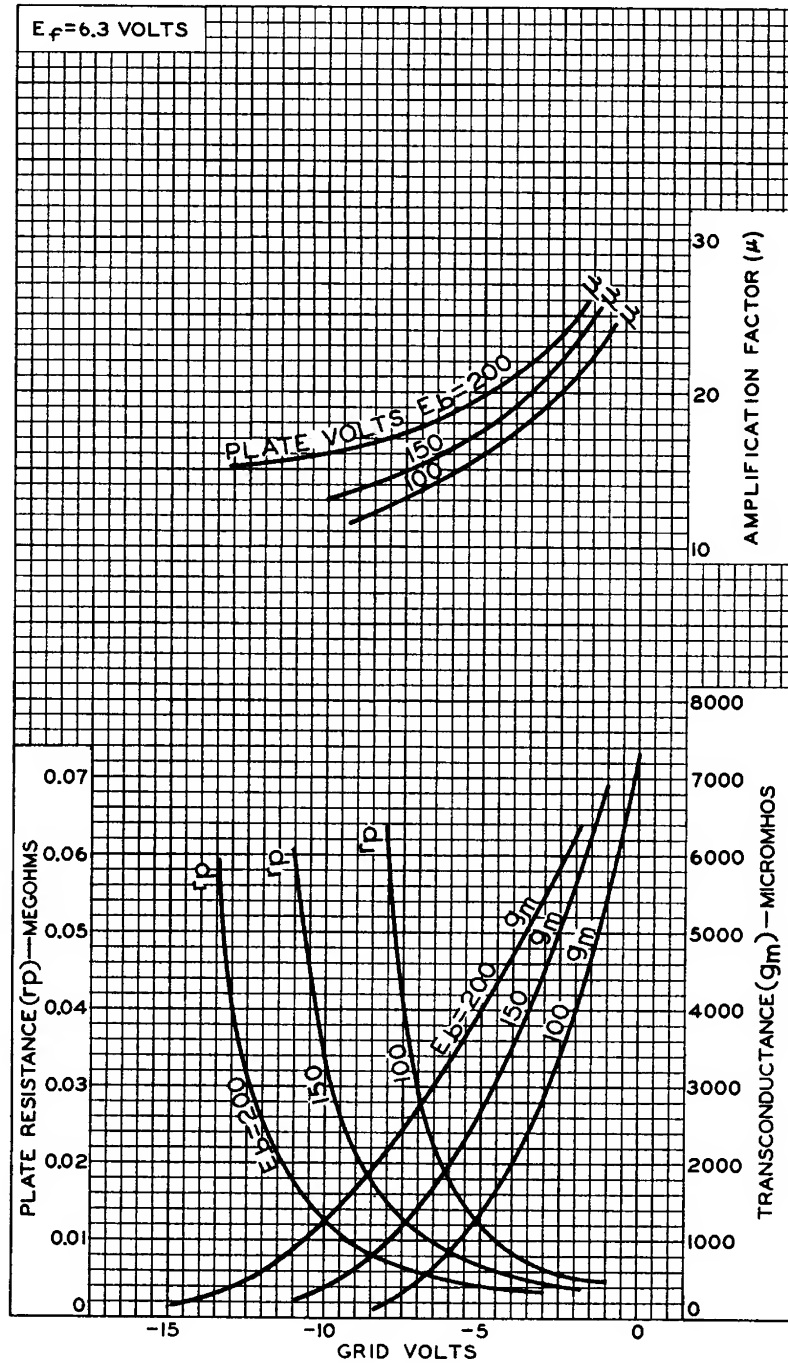


RADIO CORPORATION OF AMERICA  
Electron Tube Division  
Harrison, N. J.

DATA 2  
1-61

# 6AN8-A

## AVERAGE CHARACTERISTICS Triode Unit



92CM-8207R1

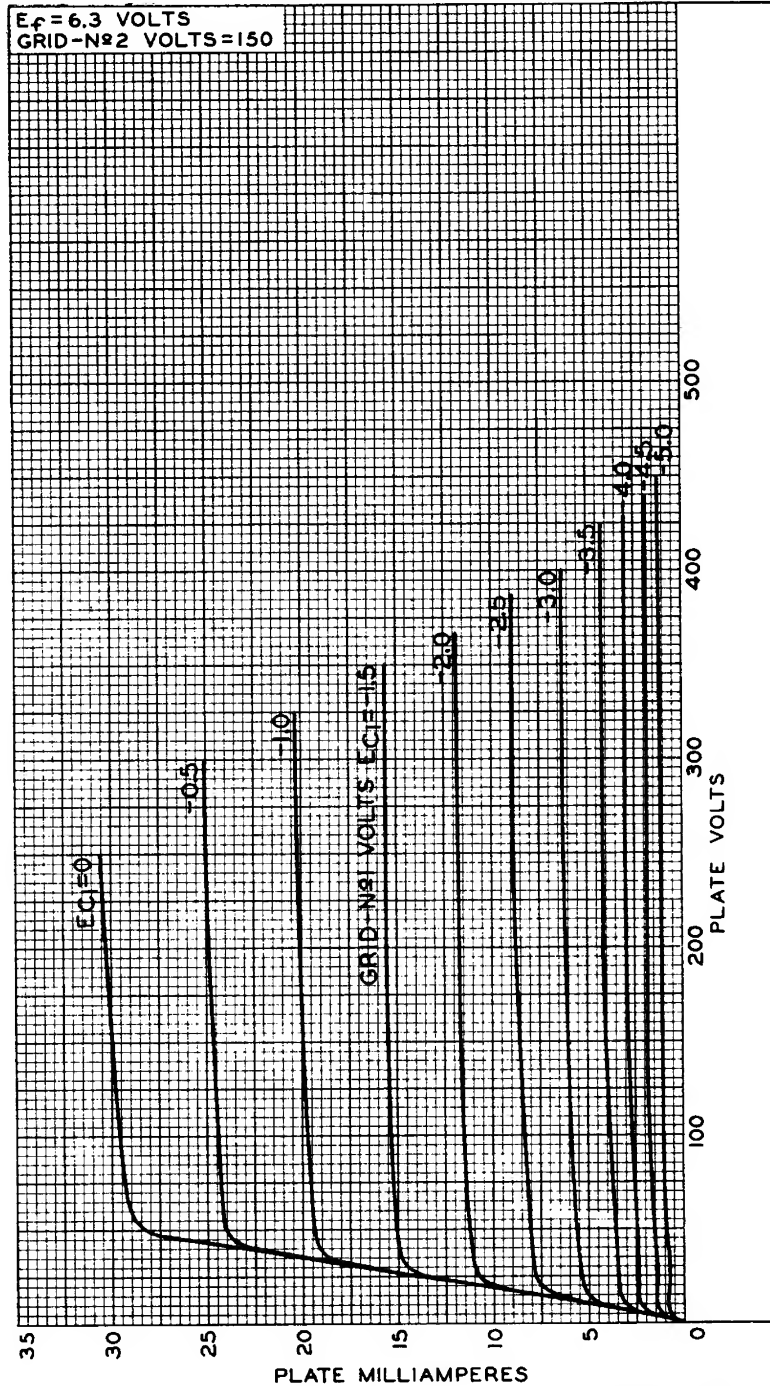
RADIO CORPORATION OF AMERICA  
Electron Tube Division

Harrison, N. J.



# 6AN8-A

## AVERAGE PLATE CHARACTERISTICS Pentode Unit



92CM-8206

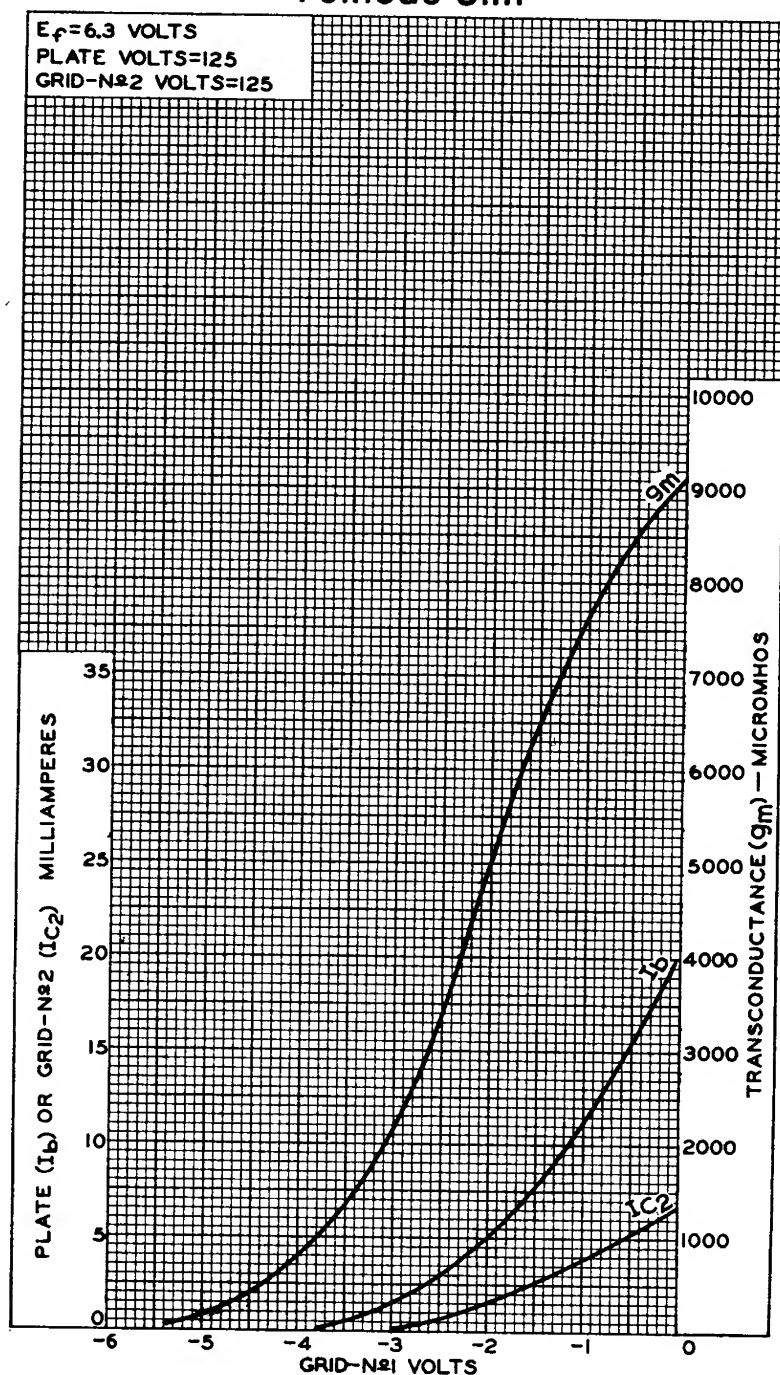


RADIO CORPORATION OF AMERICA  
Electron Tube Division  
Harrison, N. J.

DATA 3  
1-61

# 6AN8-A

## AVERAGE CHARACTERISTICS Pentode Unit



92CM-8208R1

RADIO CORPORATION OF AMERICA  
 Electron Tube Division

Harrison, N. J.

